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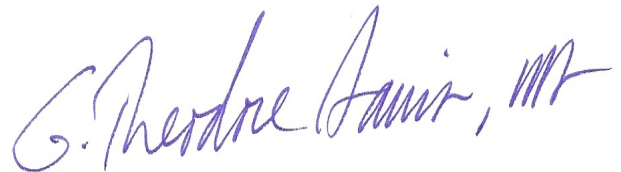
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March 13 , 2020

Medical Expert Report

To: Ryan M Perdue, Esq
c/o Fernelius Simon Mace Robertson
Perdue PLLC
4119 Montrose Blvd. Suite 550
Houston TX 77006



From: G. Theodore Davis, MD

Re: Review and Analysis of Medical Records and Documents - **Kyle Beebe**
(Beebe v John Todd; 19-CV-00545)

DOB - [REDACTED]

SS # - xxx-xx-[REDACTED]

DOI - 5/5/16

INTRODUCTION

As you requested I have prepared this expert report to discuss the opinions and conclusions I have reached to a reasonable degree of medical certainty in this case with respect to whether or not the review and analysis of the information contained in the medical records and other materials provides a medical basis to support a conclusion that as a result of the motor vehicle collision of 5/5/16 Mr. Beebe sustained injury; and, if so, the nature and extent of that injury and any medical care related to that event.

It is my understanding that discovery is ongoing. Thus, when additional information becomes available, I reserve the right to amend, modify or clarify the opinions and conclusions expressed in this report if warranted. Copies of my CV, fee schedule, and four year deposition and trial lists are provided separately.

Medical and related matters, such as clinical mechanism of injury analysis, medical causation analysis, traumatic and non-traumatic musculoskeletal and neurological

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conditions, rheumatologic disorders, interpretation of diagnostic studies, disability analysis, review and analysis of medical records and documents, and identification of and review and analysis of medical literature are within my scope of knowledge, education, training and combined 44-year professional experience in emergency medicine (board certification current through 2028)¹, occupational medicine (clinical emphasis on musculoskeletal medicine/orthopaedics, medical causation analysis, disability management, mechanism of injury assessment), disability evaluation medicine, general medicine, orthopaedic surgery (Commissioned Officer, US Public Health Service, 1977-78), and medical/legal analysis. Additional information regarding my education, training, experience, relevant medical principles (e.g., medical documentation, mechanism of injury, medical causation, etc.), and methodology employed in this review and analysis is included for the reader in the Appendix of this report.

MATERIALS REVIEWED

VOLUME 1 (three ring binder)

Imaging and other study reports and materials

Animus Surgical Hospital followed by billing document

2016

- 5/5/16 Abdominal Ultrasound: Alcindor / DeLacey
- 5/5/16 Scrotal Ultrasound: Alcindor / DeLacey
- 5/13/16 CT abdomen and pelvis; unidentified provider / Johnson
- 12/21/16 MRI lumbar spine; Silva / Johnson

2017

- 6/8/17 MRI pelvis; Schermer / Johnson
- 6/26/17 MRI lumbar spine; Silva / Johnson
- 11/14/17 sacroiliac joints; Silva / Johnson

¹Because the broad clinical and scientific discipline of emergency medicine necessarily intersects and overlaps with virtually every other medical speciality and sub-specialty, the credential includes over 20 defined core categories of knowledge and expertise. See for examples: "Core Content of Emergency Medicine," American College of Emergency Medicine, American Board of Emergency Medicine, Society for Academic Emergency Medicine, Annals of Emergency Medicine, August 8, 1991; "The Model of the Clinical Practice of Emergency Medicine," The Core Content Task Force, Annals of Emergency Medicine, June, 2001, 745-770; and, "The Model of the Clinical Practice of Emergency Medicine: A 2-Year Update," 2003 EM Model Review Task Force, Annals of Emergency Medicine, June 2005, 659-674

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- 11/14/17 lumbar spine; Silva / Johnson

2018 - no records

2019 - no records

2020 - no records

Animus Urgent Care

2016

- 5/13/16 lumbar spine and pelvis; Pitts / Maes

2017 - no records

2018 - no records

2019 - no records

2020 - no records

Mercy Medical Center followed by billing documents

2017 -

- 7/7/17 Total body bone scan; unidentified provider / Messerli

Spine Colorado

2017

- 9/22/17 lumbar spine with flexion and extension views; unidentified provider / Abtahl

2018 - no records

2019 - no records

2020 - no records

Three Springs Imaging followed by billing document

2018

- 12/4/18 MRI lumbar spine; unidentified provider / unidentified provider

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2019 - no records

2020 - no records

Medical Records and Related Documents

Animus Surgical Hospital and related clinics, James Pitts, PA-C, David Silva, DO, and scans of records from Spine Colorado followed by billing documents

2016 - 5/5 (ED record), 5/5 (abdominal US and scrotal US), 5/13, 5/23, 6/20, 7/25, 8/30, 9/23, 10/24, 12/19

2017 - 1/18 (procedure note Silva), 1/18 (Silva), 1/26, 2/21, 3/7 (Silva), 3/7, 3/28, 4/11, 5/5, 5/12, 6/14, 7/13, 8/18, 8/25, 9/22 (Spine Colorado, Amir Abtahi, MD), 10/3, 11/2 (Silva), 11/13, 12/13

2018 - 2/9, 6/14

2019 - no records

2020 - no records

VOLUME 2 (three ring binder)

Bayfield Physical Therapy followed by insurance documents

2016 - 7/6, 7/6, 7/11, 7/20, 7/25, 7/25, 7/25, 7/27, 8/1, 8/10, 8/15, 8/22, 8/30, 8/31, 9/7, 9/12, 9/14, 9/21, 9/28

2017 - 2/1, 2/1, 2/6 2/8, 2/15, 2/20, 2/22, 3/1

2018 - no records

2019 - no records

2020 - no records

Lake Chiropractic followed by billing documents

2016 - 5/5, 5/5, 5/9, 5/12, 5/16, 5/19, 6/2, 6/9, 6/13

2017 - 3/9, 3/13, 3/16, 3/23, 4/5, 4/10, 4/13, 4/17, 4/20, 4/24, 5/1, 5/8, 5/11

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2018 - no records

2019 - 1/8, 1/31

2020 - no records

Mercy Medical Center followed by billing documents

2017 - 7/7

2018 - no records

2019 - no records

2020 - no records

Reliance Medical Group, Nick Armano, PAC, Larry Welling, MD, Chad Silseth, DC
followed by billing documents

2018 - 6/26, 6/26, 6/26, 6/26, 6/26, 6/27, 7/?, 7/26, 7/30, 7/30, 8/1, 8/1, 8/6, 8/6, 8/13,
8/13, 9/19, 9/19, 9/19, 9/24

2019 - no records

2020 - no records

emails, misc

**Southwest Colorado Spine / DBA Animas Spine, David Silva DO and Patrick
McLaughlin, MD** followed by billing documents

2016 - 12/20

2017 - 1/4, 1/18, 2/7, 3/7, 6/1, 11/6, 11/14

2018 - 1/26

2019 - no records

2020 - no records

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Spine Colorado, Amir Abtahi, MD, Jamie Nelson, PASUP, Cyril Bochachvesky, MD
followed by billing documents

2017 - 9/22, 10/9, 11/1, 11/28, 12/5

2018 - no records

2019 - 1/14

2020 - no records

Non-Medical Records and Documents

Accident Report dated 5/5/16

Photos

Complaint

Answers to Defendant John Todd's First Set of Interrogatories and Requests for
Production to Plaintiff Kyle Beebe

Deposition of Kyle Beebe dated 1/16/20

ANALYSIS and DISCUSSION

Section 1:

Does analysis of the information contained in the reviewed medical records and other documents provide a medical basis to support a conclusion that as a result of the motor vehicle collision of 5/5/16 plaintiff sustained clinically significant injury to his spine, sacroiliac joints, internal organs, or other body regions, organ systems or functions?

No, for the reasons discussed below. At the time of the collision, plaintiff was 44 years old.

Provided materials including accident scene photographs (available photos reproduced on page 9), the sheriff's report, plaintiff's medical records, and plaintiff's deposition transcript reflect that on 5/5/16 at about 6 am the Ford pickup truck driven by plaintiff and the Ford pickup driven by Mr. Todd were involved in a collision in Cedar Hill.

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Although the impact appears to have been significant (with plaintiff testifying that his truck was traveling at around 40-65 mph (see Lake Chiropractic note of 5/5/16), but braking prior to contact with the side of the Todd truck), neither party reported injury at the scene, neither party was ejected from the vehicles, the vehicles did not roll over, no intrusion occurred into the passenger compartment of plaintiff's truck, plaintiff was wearing appropriate safety harnesses/belts, and he was awake, alert and ambulatory at the scene in no apparent distress. Plaintiff did not go to a hospital emergency department for assessment (although subsequently on that day he did seek attention from a chiropractor and then from an urgent care facility). Accordingly, although a motor vehicle crash of this nature carries the potential for a consequential clinical mechanism of injury,² based upon review and analysis of the information discussed above, and information contained in subsequent clinical records of plaintiff, the particular circumstances of this event did not.³

²In assessing a "clinical mechanism of injury" from a medical perspective, the kind of information discussed in this paragraph and other sections of this report is relevant to the analysis, and physicians assessing trauma in a clinical setting take this kind of data into consideration when evaluating the probability and/or severity of potential injury in order to make medical management decisions. This data may also be relevant in formulating causation opinions and conclusions in the forensic context. Regarding this concept, see for examples: Etiology, Mechanism of Injury: Rosen's Emergency Medicine: Concepts and Clinical Practice, 6th Edition, 2006, Mosby Publishers, 302-3; Grande, CM and Stene, JK, Mechanism of Injury: etiologies of trauma. In Stene, JK, Grande, CM (eds): Trauma Anesthesia, Williams & Wilkins, Publishers, 1990; Haider, AH, et al, Mechanism of injury predicts patient mortality and impairment after blunt trauma, J of Surgical Research, 2009, 153, 138-142; States, JD, et al, Fatal injuries caused by underarm use of shoulder belts, J Trauma, 1987, 27, 740-5; Arnold, C, et al, Managing dislocations of the hip, knee and ankle in the emergency department, Emergency Medicine Practice, EBMedicine.net, 2017, 19 (12); The BackLetter, Does minor trauma trigger serious low back pain? Is the 'injury model valid, 11/2005, 121; 128-129; Carragee, E, et al, Does minor trauma cause serious low back illness? Spine, 2006, 31, 2942-2949; Allen, ME, et al, Acceleration perturbations of daily living: a comparison to whiplash, Spine, 1994, 19, 1285-90. Also, see the Appendix sections titled *Mechanism of Injury* and *Causation*.

³The clinical mechanism of injury analysis conducted by me in this case, rather than a formal biomechanical analysis or accident reconstruction, is the kind of scientifically valid concept routinely relied upon by physicians in considering the manner in which an injury may have occurred, given a patient's reported medical history and/or the report of an occurrence of specific circumstances of an event, the nature and known causes of the medical condition or clinical finding at issue, and other medically relevant factors. In short, the question to be addressed clinically, with respect to a mechanism of injury, is "do the medical findings make sense given the description of the event?" Moreover, the context or circumstances of the reported event are further analyzed based upon the presence or absence of a verifiable medical condition that has been scientifically shown to potentially be caused by the kind of event in

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question. A similar but slightly different set of data are used in assessing a “mechanism of disease,” such as an infection, cancer or other systemic disorder.

It has been demonstrated that during a motor vehicle collision when the passenger compartment is caved in, or violated by a foreign object such as another vehicle, or a telephone pole, or a fence post, the potential for injury is greater, the presence or absence of "intrusion" into the passenger compartment is relevant in the clinical analysis. (Stefanopoulos N, et al, Deformations and intrusions of the passenger compartment as indicators of injury severity and triage in head-on collisions of non-airbag-carrying vehicles. *Injury* 2003;34:487–92; Diego Reyero Díez, DR, et al, Use of a structural deformity index as a predictor of severity of among trauma victims in motor vehicle crashes, *The Journal of Emergency Medicine*, jemermed.s010.01.017; Sasser SM, Hunt RC, Sullivent EE, et al.; National Expert Panel on Field Triage, Centers for Disease Control. Guidelines for field triage of injured patients. *Morbidity and Mortality Weekly Report*; Recomm Rep 2009;58(RR-1): 1–35).

As well, it has been demonstrated that during a motor vehicle collision when the occupant is ejected from the vehicle, the potential for injury is greater, the ejection or non-ejection of the individual from the vehicle during the collision is relevant to the clinical analysis (Sasser SM, Hunt RC, Sullivent EE, et al.; National Expert Panel on Field Triage, Centers for Disease Control. Guidelines for field triage of injured patients. *Morbidity and Mortality Weekly Report*; Recomm Rep 2009;58(RR-1): 1–35).

Moreover, it has been demonstrated that the likelihood of significant injury is much less when an individual involved in a motor vehicle accident is mentally alert and otherwise functional and ambulatory at the scene (rather than unconscious or physically incapacitated because of bodily injury), the status of the individual at the scene of the accident is relevant to the clinical analysis (Sasser SM, Hunt RC, Sullivent EE, et al.; National Expert Panel on Field Triage, Centers for Disease Control. Guidelines for field triage of injured patients. *Morbidity and Mortality Weekly Report*; Recomm Rep 2009;58(RR-1): 1–35).

Importantly, when EMS personnel bring a patient to the emergency department because of medical concerns related to a motor vehicle collision, the kind of information discussed in the paragraphs above is directly transmitted to the receiving medical team and constitutes part of the reliable factual basis that assists those providers in making appropriate clinical decisions regarding the patient. Moreover, it is this kind of information collected by emergency medical personnel that helps determine whether an individual in a car crash should be transferred to a Level One Trauma Center such as the University of New Mexico Health Sciences Center (Guidelines for Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage, 2011, Centers for Disease Control, *Morbidity and Mortality Weekly Report*, Jan 12, 2012).

Therefore, no formal biomechanical or accident reconstruction process need occur in order for either a treating medical provider or medical analyst reviewing a medical case to take into account clinically relevant information associated with a potentially traumatic incident, such as the presence or absence of intrusion into the passenger compartment during a motor vehicle

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Although according to information contained in the "Personal Injury Questionnaire" plaintiff completed at Lake Chiropractic later in the day of 5/5/16 (no time of contact stated on the records), and the chiropractor's note from that day, plaintiff reported pain complaints in various body areas (e.g., both shoulders, right anterior hip region, mid back, posterior neck, trapezius muscle, sacroiliac areas, etc (see page 4 of 38 in the sequence of these records), the clinical findings on examination were reported to be benign. Thus, the statement regarding prognosis reflected in the chiropractic note is unsurprising:

"Kyle is of good health and is expected to make good progress and recovery with few residuals. Complicating factors: severity of initial episode of injury. Contraindications to chiropractic care: nothing noted. Based on his history and examination, it is reasonable to believe that his recovery may take about the same length of time as an average patient with an uncomplicated case."



collision, or the other kinds of relevant data discussed in this report.

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Reviewed records reflect plaintiff was also evaluated later on the day of 5/5/16 at approximately 4 pm at the Animas Surgical Hospital (ER or UC) by David Alcindor, MD, for complaints related to potential injury in the abdominal region, namely lower abdominal pain at the level of the seatbelt that radiated to the left leg and left testicle, that reportedly only occurred about two hours prior to presentation. To further assess this complaint, a physical examination was conducted along with diagnostic imaging studies. Given the clinical examination findings were benign, without objective signs of injury, it is also unsurprising that the ultrasound studies of the abdominal organs and testicles were entirely normal, and revealed no evidence of injury.

As shown by inspection of the provided clinical records, subsequent to 5/5/16, plaintiff was embarked upon a series of evaluations, treatments, tests, and procedures from a variety of medical providers of different disciplines which continued through at least 1/14/19, although based upon plaintiff's deposition testimony, he apparently has seen a provider in New Mexico more recently, reportedly for an "impairment rating," although plaintiff did not identify at what facility he was seen for the rating. Please see the materials identified in the "Materials Reviewed" section above for additional details.

Information contained in plaintiff's medical records and plaintiff's testimony indicate that none of the care plaintiff has received, including physical therapy, medications, chiropractic, plus lumbar spine and sacroiliac joint "interventional pain procedures" have afforded him any significant or lasting relief of his discomfort. It is however unsurprising that ongoing treatments have not been of benefit to plaintiff, as on physical examination (e.g., records from multiple providers document normal spinal range of motion, normal neurological findings, etc) and on diagnostic testing no traumatically-caused conditions that would have responded to the type of care he has received have been identified; and spinal and pelvic (sacroiliac) imaging studies (CT scan; MRI, X-ray) have not revealed the presence of any traumatically-caused conditions, although, as will be discussed below, findings potentially consistent with a chronic inflammatory process are present at his right sacroiliac joint.

For example, although multiple spinal MRI studies have been conducted at the request of different providers, only the normally anticipated age-associated degenerative anatomical changes have been observed to be present in his lumbar spine (see the various radiology reports for details regarding mild facet joint changes, mild neuroforaminal narrowing, etc).⁴

⁴Decades of scientific studies have shown that often spinal imaging studies of various types (X-ray, CT, MR, Myelography) reveal a variety of anatomical findings (e.g., disc degeneration, disc herniation, disc protrusion, disc bulging, facet arthritis, annular tears, spinal cord compression, etc.) to be present in the cervical, thoracic and lumbar regions of the general population that do not correlate with symptoms, complaints, or injury; and, the degree of changes present on imaging tests appear to increase with age, although such findings, especially in the lumbar

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Moreover, despite plaintiff's testimony that he continues to experience pain and that as a result he has limitations in activities, his reported behaviors described during his deposition testimony and reported to his medical providers are not consistent with an acute traumatic injury or residuals of an ongoing medically-consequential traumatic disorder. Some examples include:

spine, are observed also in asymptomatic children. A few recent and earlier examples of this body of literature include:

Benoist, M, Natural history of the aging spine, *Eur Spine J*, 2003, 12, S86-S89; Papadakis, M, et al, Pathophysiology and biomechanics of the aging spine, *The Open Orthopaedics J*, 2011, 5, 335-342; Vernon-Roberts, B et al, The natural history of age-related disc degeneration: the influence of age and pathology on cell populations in the L4-5 disc, *Spine*, 2008, 33, 2767-73; Ramadorai, U, et al, Incidental findings on MRI of the spine in the asymptomatic pediatric population, *Evid Based Spine Care J*, 2014, 95-100; Kim, SJ, et al, Prevalence of disc degeneration in asymptomatic Korean Subjects - Part 1: lumbar spine, *J Korean Neurosurg Soc* 2013, 53, 31-38; Lee, TH, et al, Prevalence of disc degeneration in asymptomatic Korean Subjects - Part 2: cervical spine, *J Korean Neurosurg Soc*, 53, 89-95; Kim, SJ, et al, Prevalence of disc degeneration in asymptomatic Korean Subjects - Part 3: cervical and lumbar relationship, *J Korean Neurosurg Soc*, 53, 167-173 lumbar spine; Roh, JS, et. al., Degenerative disorders of the lumbar and cervical spine, *Orthopaedic Clinics of North America*, 2005, 36, 255-262; Hitselberger, W.E., and Witten, R.M., "Abnormal Myelograms in Asymptomatic Patients," *Journal of Neurosurgery*, 1968, Vol. 28, p. 204-206; Wiesel, S.W., "A Study of Computer-Assisted Tomography: The Incidence of Positive CAT Scans in an Asymptomatic Group of Patients," *Spine*, 1984, Vol. 9, p. 549-551; Boden, S.D., et al, "Abnormal Magnetic-Resonance Scans of the Lumbar Spine in Asymptomatic Subjects," *The Journal of Bone and Joint Surgery*, 1990, Vol. 72-A, p. 403-408; Jensen, M.C., et al, "Magnetic Resonance Imaging of the Lumbar Spine in People Without Back Pain," *New England Journal of Medicine*, 1994, Vol. 331, p. 69-73; Deyo, R.A., "Magnetic Resonance Imaging of the Lumbar Spine: Terrific Test or Tar Baby?" *New England Journal of Medicine*, 1994, Vol. 331, p. 115-116; Boden, S.D., et al, "Abnormal Magnetic-Resonance Scans of the Cervical Spine in Asymptomatic Subjects," *The Journal of Bone and Joint Surgery*, 1990, Vol. 72-A, p. 1178-1184; "Thoracic abnormalities nearly universal," *The Back Letter*, 1994, Vol. 9, No. 1, pp. 1, 6-8; Wood, K.B., et al, "Magnetic Resonance Imaging of the Thoracic Spine: Evaluation of Asymptomatic Individuals," *The Journal of Bone and Joint Surgery*, 1995, Vol. 77-A, p. 1631-1638; Carragee, EJ, et. al., "Lumbar High-Intensity Zone and Discography in subjects without low back problems," 2000, *Spine*, Vol. 25, No. 23, pp. 2987-2992; *Back Letter*: Are current methods capable of accurately identifying discogenic pain, 9/04, 97, 102-3; Carragee, E, Persistent Low Back Pain, *N Engl J Med* 2005;352:1891-8; *The BackLetter*, Does minor trauma trigger serious low back pain? Is the 'injury model' valid, 11/2005, 121; 128-129; Carragee, E, et al, Does minor trauma cause serious low back illness? *Spine*, 2006, 2942-2949; Shock over disc degeneration in 10-year olds—but are disc abnormalities in this age group surprising? *The Back Letter*, Vol. 19, January 2004, pp. 1, 8-9; Deyo, R, Cascade Effects of Medical Technology, *Annual Review of Public Health*, 2002, p. 23.

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- He continues to work full time as a truck driver, and has been able to successfully meet the physical standards in renewing his Commercial Drivers License (to do so requires he undergo and pass a medical examination at least every two years (copies of his DOT physicals are not yet available).
- Bayfield Physical therapy records reflect that on 7/20/16 he had no difficulty riding horses; that on 8/22/16 he had been riding horses for the past 4 days gathering horses; that on 9/14/16 he reported that he had ridden "... the tractor & baled hay over the weekend without complaints."
- According to the note of Dr. Silva (Southwest Colorado Spine / DBA as Animas Spine) from 3/7/17, plaintiff reported that he felt some relief riding a horse or laying down.

Furthermore, consistent with plaintiff being able to engage in normal activities, there is no documentation in plaintiff's medical records that his providers have issued a recommendation that because of risk avoiding or therapeutic reasons associated with a medical condition he limit or restrict any activities in which he might wish to or might need to engage.

In summary, based upon review and analysis of the information contained in plaintiff's medical records, diagnostic study reports, his deposition testimony and the other materials identified above, there is no medical basis to support a conclusion that plaintiff's ongoing complaints and course and cost-of-care thus far, or any reported limitations in his capacity to engage in life or work activities, are attributable to injury sustained during the collision of 5/5/16. At most, as a result of the collision, plaintiff sustained minor soft tissue muscular strains from which he recovered in no more than a few days to at most a few weeks without residuals. Accordingly, the only medical attention that he has received that is reasonably related to the collision at issue extended only to the end of June, 2016. Put another way, any evaluations, treatments, tests and procedures conducted after the end of June, 2016, are unrelated to the collision at issue in this lawsuit.

Section 2:

Does review and analysis of the information contained in plaintiff's medical records, diagnostic studies, and other materials identified above provide a medical basis to support a conclusion that there is a likely medical explanation for plaintiff's complaints and the results of his diagnostic imaging studies of his spine and pelvis / sacroiliac joints that is unrelated to the collision of 5/5/16?

Yes.

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Part A - the finding of hypointense bone marrow on MRI

First, with regard to plaintiff's spinal MR imaging studies, the radiologists who have interpreted them have reported that plaintiff's bone marrow signal throughout "the entire visualized lower thoracic spine, lumbar spine and pelvis" exhibits a "hypointense" signal, and that such a finding on MR imaging –

"may be related to chronic anemia, smoking, or myelofibrosis. This can also be seen in chronic human immunodeficiency virus" (i.e., HIV / AIDS).

See the lumbar spine MRI radiology report of Jay Johnson, MD, Animas Surgical Hospital, 12/21/16, and the subsequent 6/26/17 lumbar spine MRI report of Pat Messerli, MD, also at the Animas Surgical Hospital. Note also that the 12/4/18 lumbar MRI report from Three Springs makes no reference to the appearance of plaintiff's bone marrow. The reason for the differences in these reported results is unclear at this time.

A listing of the possible explanations for a radiographic finding in this circumstance is in effect the "differential diagnosis"⁵ to consider for the finding. Presumably it is also possible that such a finding on MRI does not represent a disease, and that the finding is possibly idiopathic (i.e., of unknown cause).

Clearly, there is no medical basis to support a conclusion that "hypointense" bone marrow could be related to a motor vehicle collision; and, should the finding of widespread "hypointense" bone marrow in fact represent one of the conditions listed in the radiology report, there is also no medical basis to support a conclusion that such a condition could in any manner be related to a motor vehicle collision.

The 12/21/16 report concludes with the statement that given the observation of the described bone marrow finding, "Clinical Correlation is recommended."

However, although plaintiff's medical records reflect that at least some of his providers are aware of this radiographic finding (some of the records directly quote radiology reports within the narrative of the doctor's note; see for example the Silva note of

⁵In essence, the development of a "differential diagnosis" is the process-oriented acquisition and analysis of all necessary positives and pertinent negatives within the professional reference framework of established medical diagnostic criteria and scientifically valid medical principles and practice for the purpose of resolving medical uncertainty regarding the patient's health status. Moreover, a specific "diagnosis" is a conclusion that clinical findings, both positives and pertinent negatives, correspond to the diagnostic criteria set forth for a particular condition and published in appropriate peer-reviewed medical literature or an appropriate textbook of medicine. Thus, a diagnosis is not simply a statement of opinion by a physician based on his or her experience or personal professional knowledge.

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3/7/17), I have been unable to identify in the records provided thus far that “clinical correlation” or further diagnostic testing to specifically evaluate the radiographic finding of widespread hypointense bone marrow has been pursued (although it does not appear that he is anemic). There would however be no medical basis to recommend that plaintiff not have his physician(s) specifically assess this radiographic finding or have a medical specialist consulted for further analysis to determine if the hypointense bone marrow is of any clinical consequence, or simply idiopathic.

Part B - the sacroiliac joints and related matters

Based upon review and analysis of the clinical records and radiographic study results plaintiff has reported complaints of pain and discomfort in the area of both sacroiliac joints and radiologists have reported that MR imaging of this anatomical region has revealed the presence of findings that may represent “sacroiliitis” on the right side. See for example the lumbar MRI report of radiologist Johnson from 12/21/16 and the subsequent pelvic MRI report of Dr. Johnson dated 6/8/17.

As explained in Dr. Johnson’s 12/21/16 report –

“Mild edema in the anterior inferior sacrum adjacent to the sacroiliac joint suggesting mild unilateral sacroiliitis. Lack of fluid argues against a septic arthritis. This could be related to psoriatic arthritis, reactive arthritis, rheumatoid arthritis. Ankylosing spondylitis is usually bilateral. Clinical correlation is recommended.”

Although some of plaintiff’s medical providers have listed sacroiliitis as one of the diagnoses, and although the clinical note of Dr. Silva dated 2/7/17 specifically states that –

“I am concerned that the SI joint might be some of the source of his right-sided pain. Therefore, I referred him to the laboratory for studies to evaluate for possible inflammatory/infectious or rheumatologic sources of his SI joint edema” –

I have been unable to identify from review of the provided follow up records of Dr. Silva and plaintiff’s other providers’ clear documentation that laboratory studies were ever obtained or that if they were, the results of those tests were assessed by any provider.

As discussed above under Part A, when a radiology report identifies potential explanations for a radiographic finding, those explanations are in essence the diagnostic possibilities for what that finding may represent medically.

As pointed out by radiologist Johnson in his report, psoriatic arthritis, reactive arthritis, rheumatoid arthritis, ankylosing spondylitis (which in some cases may be apparent on one side; and other spondyloarthropathies - GTD) are known causes of the kind of

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pelvic / SI joint finding observed on plaintiff's MR images.

Moreover, these rheumatologic disorders are known medical causes for subjective complaints such as back pain and SI joint pain and physical findings such as spinal and SI joint region tenderness on palpation; and, symptoms associated with these kinds of disorders do not respond to treatments such as chiropractic spinal manipulation, physical therapy, spinal injections, SI joint injections, or other interventions typically provided for complaints attributable to trauma, sprains, strains, etc.

Furthermore, because of the nature of these rheumatologic conditions it is not uncommon for patients and health care workers to mistakenly interpret symptoms or signs associated with these disorders to memorable and/or specific but non-causative events such as slips/falls, car accidents, and work activities, or to overexertion, sports activities,⁶ physical de-conditioning, disc degeneration, disc herniation,⁷ sciatica,⁸ facet arthropathy, aging, or a variety of other factors that are in fact entirely unrelated. As well, there are also some additional conditions that need to be considered in pursuing a differential diagnosis of symptoms or radiographic findings of "sacroiliitis."⁹

In fact, false imputation of symptoms and signs of these kinds of rheumatologic conditions is not uncommon in workers' compensation cases¹⁰ and in contested personal injury claims,¹¹ as both patients and medical providers focus on and are distracted by the claim or lawsuit which in essence serve as a "red herring,"¹² a logical

⁶Jennings, F, et al, Rheumatic diseases presenting as sports-related injuries, Sports Medicine, 2008, 36, 917-930.

⁷Gerdan, V, et al, Initial diagnosis of lumbar disc herniation is associated with a delay in diagnosis of ankylosing spondylitis, J Rheumatology, 2012, 39, 1996 - 1999.

⁸Sacroiliitis presenting as sciatica, Rheumatology, 2005, 44, 1323-1324

⁹Antonelli, MJ, and Magrey, M, Sacroiliitis mimics: a case report and review of the literature, BMC Musculoskeletal Disorders, 2017, 18, 170.

¹⁰I practiced in the workers' compensation arena for 20 years, and have observed this phenomenon on multiple occasions.

¹¹Aronoff, GM, et al, Evaluating Malingering in contested injury cases, Pain Practice, 2007, Vol 7, No 2, 178-204.

¹²Wikipedia: "A red herring is something that misleads or distracts from a relevant or important question. It may be either a logical fallacy or a literary device that leads readers or audiences toward a false conclusion. A red herring may be used intentionally, as in mystery fiction or as part of rhetorical strategies (e.g., in politics), or may be used in argumentation inadvertently."

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fallacy akin to the post hoc, ergo propter hoc fallacy.¹³ The “red herring” phenomenon is known to occur in the medical context.¹⁴

Note for example in this case (as is unfortunately typical in workers’ compensation claims throughout the US), when plaintiff is referred from one doctor to the next, month after month or year after year, there is frequently a preamble stated in the medical record such as –

“This is an initial Workers’ Compensation evaluation after transfer of care for bilateral low back and hip area pain. Kyle was involved in a motor vehicle accident...” (Reliance Medical Group, 6/26/18) –

that instantly and usually irrevocably commits the medical provider to a particular bias toward the cause of the problem. Furthermore, in some workers’ compensation claims and personal injury claims other dynamics may come into play such that maladaptive behaviors, secondary gain, and psychosocial factors adversely impact the cost and course-of-care.^{15 16 17}

¹³“The fallacy of Post Hoc Ergo Propter Hoc begins with the observation that two events occurred in sequence. As such, it appears to be good Retroductive reasoning, since such a temporal ordering is just the kind of concomitance that might suggest a causal connection. However, it is also possible that the temporal ordering is just a coincidence, or is the result of some further causal factors--indeed, unrelated events occur in temporal sequence all the time. The vast majority of events that happen in one moment are unrelated to the events that happen in the next. ("A bird flew past my window just before my computer crashed. Drat that bird!") Hence, temporal ordering alone is a poor guide to causal relationships. The Post Hoc fallacy mimics good Retroductive reasoning by noting a genuine concomitance, but it errs in focusing on a concomitance that is so commonplace as to be meaningless, unless accompanied by other suggestive details and a common sense understanding of how cause and effect work.” From the world wide web: <https://www2.palomar.edu/users/bthompson/Post%20Hoc%20Ergo%20Propter%20Hoc.html>

¹⁴See for example: A diagnostic red herring, Emergency Med J, 2008, 35, 163-1658 and Patel, S, Discoid lupus erythematosus: when a superficial injury is a red herring of underlying disease, BMJ Case Report 2017.

¹⁵At this time I am unable to rule out as part of the standard differential diagnostic process the presence of some element of secondary gain in this case. During my 40 year medical career, in addition to evaluating and treating patients with a variety of medically verifiable injuries and diseases, as well as psychosocial problems, and maladaptive behaviors, between 1985 and 2005 I conducted over 10,000 social security consultative medical evaluations, and conducted numerous workers’ compensation IMEs individually or as a medical panel member. Accordingly, from time to time I had to identify and then help my patients manage maladaptive behaviors in order to help resolve their medical issues and restore function on and off the job. I had

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specialized training in these matters through various continuing medical education seminars, and have studied the relevant peer-reviewed literature, some of which is cited in this report.

¹⁶Derebery, VJ and Tullis, WH, "Delayed recovery in the patient with a work compensable injury," *Journal of Occupational Medicine*, 1983, Vol. 25, pp. 829-835.

As stated in a review article on the problem of persistent back pain (the concept would apply to other chronic musculoskeletal pain conditions in similar clinical contexts - GTD) in the *New England Journal of Medicine* (Carragee, E, Persistent Low Back Pain, *N Engl J Med* 2005;352:1891-8)

Psychosocial factors strongly predict future disability and the use of health care services for low back pain. Chronic disabling low back pain develops more frequently in patients who, at the initial evaluation for low back pain, have a high level of "fear avoidance" (an exaggerated fear of pain leading to avoidance of beneficial activities), psychological distress, disputed compensation claims, involvement in a tort-compensation system, or job dissatisfaction. These psychosocial factors are particularly prevalent in persons with low back pain for whom imaging shows only degenerative changes; 70 to 80 percent of such patients demonstrate psychological distress on psychometric testing or have disputed compensation issues, compared with 20 to 30 percent of patients whose imaging studies reveal definite pathologic or destructive processes. These psychosocial factors should be routinely assessed in patients with low back pain and taken into account in decisions regarding treatment.

Bellamy, R, "Compensation neurosis: financial reward for illness as nocebo," *Clinical Orthopaedics and Related Research*, 1997, No. 336, pp. 94-106. (Note: A non-medication placebo, such as a sugar pill, may make a patient better, while a nocebo may make the patient worse. See for example: Hahn, RA, The nocebo phenomenon: concept, evidence and implications for public health, *Preventive Medicine*, 1997, 26, 607-11.)

This article in part explains that:

Results of medical treatment are notoriously poor in patients with pending litigation after personal injury or disability claims, and for those covered by workers' compensation programs. Although some instances of overt malingering are documented by surveillance videos, most exaggerated illness behavior in compensation situations takes place because of a combination of suggestion, somatization, and rationalization. A distorted sense of justice, victim status, and entitlement may further the exaggerated sick role...Financial reward for illness thus functions as a powerful nocebo, a nonspecific force creating and exacerbating illness.

¹⁷American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, TR (DSM-IV-TR)*, 2000, p. 739. DSM-IV explains that "intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives...should be strongly suspected if any combination of the following is noted:

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However, because these rheumatologic conditions may be progressive, “early diagnosis is key”¹⁸ and appropriate interventions to delay disease progression with appropriate forms of relatively newly developed medicines^{19 20} are essential.

medicolegal context of presentation; marked discrepancy between the person’s claimed stress or disability and the objective findings; lack of cooperation during the diagnostic evaluation and in complying with the prescribed treatment regimen; the presence of antisocial personality disorder.”

Additionally, as explained by Aronoff, et al (Aronoff, GM, et al, Evaluating Malingering in contested injury cases, Pain Practice, 2007, Vol 7, No 2, 178-204):

Malingering can be a single action, such as “false imputation,” in which an individual falsely claims that a given medical problem is due to a particular injury or event. This is often seen in claims that involve motor vehicle accidents, workers’ compensation, or other liability claims, but can also occur when a person becomes disabled due to a medical condition that predated a newly acquired short- or long-term disability policy. The rationale is to obtain coverage or remuneration for conditions that otherwise would not be compensable.

With regard to “secondary gain” that may occur in contested injury claims where “false imputation” is at play, note that DSM-IV-TR, page 494, explains: Primary Gain - “the individual’s somatic symptom represents a symbolic resolution of an unconscious psychological conflict, reducing anxiety and serving to keep the conflict out of awareness”; Secondary Gain - “external benefits are obtained or noxious duties or responsibilities are evaded.” Also, see: van Egmond, JJ, Beyond secondary gain, Am J Psychoanal, 2005, 6, 167-77; Fishbain, D, et al, Secondary gain concept: a review of the scientific evidence, The Clinical Journal of Pain, March, 1995.

Also, see: Should malingering be in the differential? Emergency Medicine News, 2015, 37, No. 11, p 31.

¹⁸Slobodin, G, et al, Sacroiliitis - Early diagnosis is key, Journal of Inflammation Research, 2018, 11, 339-344.

¹⁹One example is Humera, which under certain circumstances and in certain patients may be indicated, if prescribed under the care of a rheumatologist skilled in managing spondyloarthropathies.

²⁰Yu, DT and Tubergen, AV, Treatment of axial spondyloarthritis (ankylosing spondylitis and nonradiographic axial spondyloarthritis) in adults, UpToDate, 1/2/20.

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Unsurprisingly, these conditions may not be entirely straightforward to conclusively diagnose with either radiographic studies²¹ or laboratory tests (e.g., serology to test for the presence of the gene for human leukocyte antigen HLA-B27), or with either the medical history or physical examination; moreover, sometimes test results are inconclusive in the presence of early disease and sometimes even in more advanced active disease: for physicians to make the appropriate diagnosis “a high index of suspicion,” experience, and/or specialized clinical acumen must function in concert.²²

For example, as stated in a recent article on one of these disorders, namely ankylosing spondylitis, published in the New England of Medicine in 2016.²³

During the past decade, ankylosing spondylitis has come to be considered as a subset of the broader and more prevalent diagnostic entity referred to as axial spondyloarthritis. The estimated prevalence of axial spondyloarthritis in the United States is 0.9 to 1.4% of the adult population, similar to that of rheumatoid arthritis. Axial spondyloarthritis is generally diagnosed and treated by rheumatologists, and there is specific treatment for it. However, prolonged delay in reaching the diagnosis is common and is usually the result of the failure of recognition by nonrheumatologists.

As pointed out in the British Medical Journal in 2006:²⁴

Because of its insidious nature, the diagnosis is sometimes delayed until late stages of the disease.

Unfortunately, the diagnosis may actually be delayed for several years, preceded by dozens of misinterpreted or irrelevant diagnostic tests, and after numerous ineffective treatments have been repeatedly provided to no benefit, at which point in time the disease is quite advanced and far less amenable to intervention. However, based upon review and analysis of information in plaintiff's medical records and his deposition testimony, there is no medical basis to support a conclusion plaintiff has yet reached that point, if in fact he has one of the forms of spondyloarthropathy or related disorder.

²¹Ostergaard, M and Lambert, RGW, Imaging in ankylosing spondylitis, Therapeutic advances in Musculoskeletal Disease, 2012, 4, 301-311.

²²Yu, DT and Tubergen, AV, Diagnosis and differential diagnosis of axial spondyloarthritis (ankylosing spondylitis and nonradiographic axial spondyloarthritis) in adults, UpToDate, 5/20/19.

²³Taurog, J, et al, Ankylosing spondylitis and axial spondyloarthritis, NEJM, 2016, 374, 2563-74.

²⁴McVeigh, CM and Cairns, AP, Diagnosis and management of ankylosing spondylitis, BMJ, 2006, 581-585.

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In summary, there is no medical basis to support a conclusion that plaintiff is suffering from the consequences of an injury sustained during the collision of 5/5/16; any transient soft tissue "injury" that could have resulted from that event resolved without residuals long ago.

Although it is not precisely clear what condition(s) plaintiff may have that accounts for his difficulties and the course-of-care and the cost-of-care evident from review of the medical records, the motor vehicle collision is not the cause. There would be no medical basis for plaintiff's treating physician(s) not to refer him for an appropriate medical specialty evaluation to clarify the diagnosis, and no medical basis for plaintiff not to seek such an evaluation, should he wish to do so. However, the "red herring" of "it was caused by the car accident" needs to be removed from the equation, otherwise the same dysfunctional cycle will continue to reoccur to the detriment of medical fact.

Section 3:

Does analysis of the information contained in the reviewed medical records and other documents provide a medical basis to support a conclusion that as a consequence of the motor vehicle collision of 5/5/16 plaintiff developed medical conditions or disorders because of which he became disabled, or limited in his capacity to engage in his usual life and work activities?

No, for the reasons discussed in the above sections. Also see the Employability section of the Appendix of this report for discussion of related principles and concepts.

CONCLUSIONS

For the reasons discussed above, therefore, and to a reasonable degree of medical certainty based upon review and analysis of the identified records and documents and consideration of relevant peer-reviewed medical literature, and my knowledge, training and experience:

1. At most, as a result of the motor vehicle collision of 5/5/16, plaintiff at most sustained minor self-limiting soft tissue muscular strains and contusions, from which he recovered without residuals by the end of June, 2016. No preexisting medical conditions were aggravated by or otherwise adversely affected by this event. Because of the collision, he does not have a permanent medical impairment or a disability.
2. Any medical interventions, tests, treatments, and procedures appropriate for initial management of the minor conditions potentially associated with the collision ended

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in late June, 2016. Care provided after that time frame, or into the future, is unrelated to the accident at issue in this lawsuit.

3. A condition or conditions presently undiagnosed but also unrelated to the collision are the likely explanation for his subjective complaints and difficulties. Any subsequent and appropriate diagnostic evaluations and / or treatments for his current condition(s) are unrelated to the motor vehicle collision.

The review and analysis of other documents, materials and information provided but not specifically referenced or discussed above in the Analysis and Discussion section did not provide a medical basis to call into question the Conclusions stated above. Should additional materials become available, I am willing to review and analyze the information contained therein. Thank you for referring the materials for review and analysis. If I may answer any questions that you may have, please contact my office.

APPENDIX

Background and Methodology

A copy of my Curriculum Vitae that further outlines my medical education, training, experience, qualifications and credentials is attached to this memorandum. I am licensed to practice medicine in New Mexico and South Carolina.

The opinions and conclusions expressed in this memorandum are given to reasonable medical certainty based on my medical professional training, education and experience, including my 43 years of professional experience, which encompasses emergency medicine (board certified²⁵ - a credential which includes 18 defined core categories of knowledge and expertise,²⁶ including but not limited to diagnosis, evaluation and treatment of traumatic and non-traumatic medical conditions and disorders, mechanism of injury assessment, radiological evaluation such as interpretation of MRI scans and x-rays, assessment and management of mental and behavioral disorders, and pharmacologic management), occupational medicine (evaluation and treatment of injured workers - e.g., neck, back, shoulders, knees, etc.; causation analysis; functional capacity evaluation; occupational biomechanics and ergonomic assessment and

²⁵After successfully completing continuing medical educational requirements and examinations I have been recertified in Emergency Medicine (Diplomate status) by the American Board of Emergency Medicine. This board certification extends to December 2028.

²⁶Because the broad clinical and scientific discipline of emergency medicine necessarily intersects and overlaps with virtually every other medical speciality and sub-specialty, the credential includes over 20 defined core categories of knowledge and expertise. See for examples: "Core Content of Emergency Medicine," American College of Emergency Medicine, American Board of Emergency Medicine, Society for Academic Emergency Medicine, Annals of Emergency Medicine, August 8, 1991; "The Model of the Clinical Practice of Emergency Medicine," The Core Content Task Force, Annals of Emergency Medicine, June, 2001, 745-770; and, "The Model of the Clinical Practice of Emergency Medicine: A 2-Year Update," 2003 EM Model Review Task Force, Annals of Emergency Medicine, June 2005, 659-674

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related matters), musculoskeletal medicine (e.g., orthopaedic diagnosis and treatment), interventional pain management,²⁷ disability evaluation medicine (medical assessment of permanent medical impairment,²⁸ employability, work capacity and related matters following injury and/or illness), and medical/legal analysis.

Additionally, I have several hundred hours of accredited postgraduate continuing medical education training in a wide variety of disciplines and sub-disciplines in medicine, including but not limited to occupational biomechanics and ergonomics (University of Michigan College of Engineering), "medical informatics"²⁹ (University of New Mexico School of Medicine), emergency medicine, and disability evaluation medicine. From 1997 to 2001, in conjunction with George M. Smith, MD, MPH, we assisted the New Zealand Government "Accident Compensation and Rehabilitation Corporation" (ACC) develop policies and procedures for management of medical information within its Independence Allowance disability system, and assisted in the development and presentation of the "Independence Allowance Assessor Training Programs" for New Zealand physicians (general practitioners and medical specialists), and in writing the certifying examination used by the NZ Government to accredit physician assessors. Training materials we developed were published by the NZ Government.

I serve on the volunteer teaching faculty of the University of New Mexico School of Medicine (since 1989) and am a clinical associate professor at that institution. In addition, I have assisted professional medical associations and governmental agencies in the US and abroad in developing educational programs for physicians that in part concerned issues such as the scientifically valid methods and techniques for review and analysis of medical records and other relevant documentation pertinent to analysis of mechanism of injury, medical causation and permanent medical impairment to arrive at conclusions for use in non-medical decision processes.

The inquiry and analysis which was undertaken by me in arriving at my opinions and conclusions in this case³⁰ were conducted within the universal professional reference framework of medicine, employing established medical diagnostic criteria and scientifically valid medical principles and practice. The opinions and conclusions in this case are also based upon relevant peer-reviewed medical and scientific literature and are consistent with established medical diagnostic criteria and scientifically valid medical principles and practice.

Specifically, in formulating my opinions and conclusions in this case, I have utilized a generally accepted clinical medical methodology which includes theories, principles, methods and techniques that provide the foundation for my successful work in both the clinical patient care setting, teaching and in my role as a medical advisor and expert consultant. This Introduction portion of my report also includes footnotes and citations from the peer-reviewed medical literature that support the stated principles and methodologies relevant to matters such as the creation and analysis of medical documentation in terms of necessary

²⁷Dr. Davis was one of the first non-anesthesiologist physicians in New Mexico to offer interventional pain management procedures.

²⁸Dr Davis is a contributor to the *AMA Guides to the Evaluation of Permanent Medical Impairment*, 5th Edition, published by the American Medical Association in 2000. The *AMA Guides* is an internationally recognized medical text used for the purposes of identifying and quantifying the extent of permanent injury or disease.

²⁹Essentially the study and practice of acquisition and analysis of peer-reviewed scientific medical literature that for example may be relevant in addressing questions raised in medical diagnosis and treatment, and causation determination.

³⁰I have approximately 26 years experience in case analysis and medical-legal consulting.

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positives and pertinent negatives recorded in medical records, the generation of a diagnostic hypothesis (i.e., “differential diagnosis”) the assessment of mechanism of injury, the determination of the plausible causes of a medical condition (i.e., “differential etiology” as opposed to differential diagnosis), and the principles of the use of medical information in non-medical decision processes.

Moreover, as applied to this case, my methodology also involved a review and analysis of the available medical and other pertinent information contained in the provided records, radiographs and documents within the professional reference framework of medicine in order to determine whether or not the information in the clinical records is sufficient to support a medically valid conclusion that the recorded diagnoses were justified in accordance with established medical diagnostic criteria and whether or not the conclusions presented in the records and medical management plan were consistent with scientifically valid medical principles and practice. This is a process-oriented analysis that is used in daily medical practice and medical research, and is therefore neutral with respect to the referring source and can therefore also assist the non-medical user of the information understand the medical and scientific methods and principles governing medical decision making, and the probative value of the information with respect to the issues at hand.

Purpose of the Review and Analysis of Information in this Case

With respect to a review of medical information and other pertinent information contained in the provided records and documents, then, given the positives and pertinent negatives recorded in the medical documentation, the objectives are to determine whether or not there is sufficient information in the clinical records to conclude that the recorded diagnoses are justified in accordance with established medical diagnostic criteria and that the conclusions presented in the records and the medical management plan are consistent with scientifically valid medical principles and practice, and to address other matters relevant to this case.

Acquisition, Documentation and Use of Medical Information for Medical Purposes

Established medical diagnostic criteria³¹ and scientifically valid³² medical principles and practice define the reference framework that governs both medical practice and medical record keeping. Physicians, as well as other health care providers, are taught, trained, and expected to obtain and record medical information within this framework which serves as the basis for clinical decision-making, for medical management of patients, and for communications between and among medical professionals. In addition, hospitals and other health care facilities have policies and procedures based upon standards promulgated by accreditation organizations such as the Joint Commission on Accreditation of Hospitals as well as various

³¹For example, one of the diagnostic criterion for the bacterial form of pharyngitis commonly known as strep throat is a positive throat culture, in which the beta hemolytic form of the streptococcal bacteria are identified. This is a sensitive and specific means to verify this diagnosis. The scientifically valid medical practice is to treat the infection with an antibiotic, usually penicillin, that is known to kill these bacteria. If no bacteria are found on the culture, the condition is not a “strep throat” no matter how severely inflamed and painful the throat is observed to be. (Ref.– Braunwald, E, et. al., editors, Harrison’s Principles of Internal Medicine, 15th Edition, 2001, McGraw-Hill Publishers, p. 903.)

³²E.g.: Wm. Daubert, et al., v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 589 (1993); General Electric Company, et al., v. RK Joiner, et ux., 522 U.S.136, 118S.Ct.512 (1997); and, Kumho Tire Co., Ltd, et al. v. Carmichael et al., 526 U.S. 137 (1999).

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state and federal requirements for record keeping that medical staff members and other practitioners are required to follow.³³

Moreover, current national physician licensing examinations³⁴ require that prior to becoming licensed health care providers in the U.S., medical school graduates successfully conduct standardized patient encounters and then demonstrate creation of appropriate clinical notes concerning those patients that incorporate accurate and complete documentation of the patient history and physical examination findings, as well as of a differential diagnosis and medical management plan in a manner consistent with "evidence-based medicine" standards of practice. "Evidence-based medicine (EBM) means integrating individual clinical expertise with the best available external clinical evidence from systematic research."³⁵ Put another way:

"Evidence-based medicine focuses on the need for health care providers to rely on a critical appraisal of available scientific evidence rather than clinical opinion or anecdotal reports [emphasis added] in reaching decisions regarding diagnosis, treatment, causation, and other aspects of health care decision making."³⁶

One of the primary principles for recording medical data within this framework, taught during education and reinforced during professional training, is that during the course of a medical evaluation, the physician, or other health care provider, is expected to document both the positive findings and the pertinent negatives.³⁷

A "positive finding" in the medical history is elicitation of particular information with regard to symptoms (such as a headache, pain or other discomfort; respiratory congestion; or weakness), the time and

³³E.g.: State of New Mexico Medical Practice Act, 1978 (revised 2003,) Chapter 61, Article 6, Section 15 D (33); State of New Mexico, Regulations Governing Acupuncture Practitioners, Rule 14.10, 12/9/92; California Business and Professions Code, §2266; State of South Carolina Physicians' Patient Records Act, §44-150; Minnesota Rule 4640.1000; and, Standards IM.6.20, Comprehensive Accreditation Manual for Hospitals, 2004, Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

³⁴United States Medical Licensing Examination (USMLE; formerly the "National Board Examination," given by the National Board of Medical Examiners).

³⁵Sackett, DL, et. al., Evidence-Based Medicine: How to Teach and Practice EBM, 1997, Churchill Livingstone, Publisher, p. 2.

³⁶Glass, LS, Editor, Occupational Medicine Practice Guidelines: Evaluation and Management of Common Health Problems and Functional Recovery of Workers, 2nd Edition, 2004, OEM Press, p. 491

³⁷E.g.: Bates, B., A Guide to Physical Examination and History, J.B. Lippincott Company, Publisher, 5th Edition, 1991, pp. 651-663; Swartz, M.H., Textbook of Physical Diagnosis, W.B. Saunders Co., Publisher, 2nd Edition, 1994, pp. 602; American Academy of Orthopaedic Surgeons, "AAOS Health Policy Update: Documentation guidelines for evaluation and management coding," July 1997, p. 17; Social Security Administration, Consultative Examinations: A Guide for Health Professionals, 11/99, SSA Pub. No. 64-025, pp. 25; 50; Cole, S.A. and Bird, J., The Medical Interview: The Three-Function Approach, Mosby, Publisher, 2nd Edition, 2000, p. 83; Social Security Administration, Office of Disability, Disability Evaluation Under Social Security, 01/2001, SSA Pub. No. 64-039, p. 16; Reteguiz, J., and Cornel-Avendano, B., Mastering the Objective Structured Clinical Examination and Clinical Skills Assessment, McGraw-Hill, Publisher, 2nd Edition, 2002, p.51; Bickley, LS and Szilagyi, PG: Bates' Guide to Physical Examination and History Taking, 8th Edition, 2003, Lippincott Williams & Wilkins, p. 796.

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circumstances of their onset, and their association, if any, with the occurrence of an inciting event (e.g., a fall, industrial accident, or exposure to an infectious agent or environmental factor). A "positive finding" in the physical examination is observation of any abnormality, whether it appears to be related to a suspected medical condition or not. Similarly, a "positive finding" in a diagnostic test or procedure is any result of the test or procedure that falls outside the accepted range of normal.

A "pertinent negative" is the absence of information that would ordinarily be present if the individual had a particular medical condition or if the onset of the medical condition is ordinarily associated with the occurrence of a particular event. For example, when an individual presents with a painful big toe, if an injury is said to be associated with the onset of the pain, the health care provider will approach the evaluation by looking for clinical evidence of a traumatic injury, such as a contusion (bruise), sprain, or fracture that could be causing the pain. On the other hand, if the individual tells the physician that there was no recent definite injury, the physician will explore for a past history of trauma or look for non-traumatic medical conditions that could be the cause such as, with the example given, a systemic disease like gout. A "pertinent negative" associated with the physical examination of an individual with a complaint of a painful joint, for example, would be the absence of tenderness or the presence of a full range of motion, i.e., the absence of a limitation of motion. With respect to diagnostic tests and procedures, a "pertinent negative" would be, for example, the absence of evidence of a broken bone on x-ray or normal laboratory blood tests, i.e., the absence of an elevated white blood cell count, a normal uric acid level, or a negative test for rheumatoid arthritis blood factor.

Because of the recognized necessity of recording both positives and pertinent negatives,³⁸ the absence of reference in a clinical record to either a positive or pertinent negative finding with respect to evaluation of a body part, function, or system may be taken to signify that the health care provider did not attach any clinical importance to that type of finding or to a medical condition ordinarily associated with such a finding. For example, if a health care provider is concerned that a cough may be associated with pneumonia, the provider would, most certainly, listen to the individual's breath sounds with a stethoscope and document in the record the finding of either abnormal breath sounds or normal breath sounds. The absence of reference to the character and quality of an individual's breath sounds, whether normal or abnormal, in a report of physical examination may, therefore, be understood to signify that, despite a history of a cough, the health care provider believed that there was no reason to be clinically concerned about pneumonia or any other abnormal condition of the lungs that could be detected by physical examination.

Similarly, a decision not to prescribe medication for pain, not to order an x-ray, or not to refer a patient for medical specialty evaluation bespeaks a significantly lower level of concern, if any at all, than calling the pharmacy immediately, scheduling the x-ray, or calling the specialist's office to set up the appointment.

The same considerations apply to the medical management plan, for it is evident that a provider's statements regarding actions taken or regarding an intention to take an action, or the absence of such statements altogether, as set forth in the medical management plan give the best indication of the health care provider's concerns regarding a patient's medical condition. The clinical record, therefore, would be

³⁸In essence, the development of a "differential diagnosis" is the process-oriented acquisition and analysis of all necessary positives and pertinent negatives within the professional reference framework of established medical diagnostic criteria and scientifically valid medical principles and practice for the purpose of resolving medical uncertainty regarding the patient's health status. Moreover, a specific "diagnosis" is a conclusion that clinical findings, both positives and pertinent negatives, correspond to the diagnostic criteria set forth for a particular condition and published in appropriate peer-reviewed medical literature or an appropriate textbook of medicine. Thus, a diagnosis is not simply a statement of opinion by a physician based on his or her experience or personal professional knowledge.

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expected to detail all medically necessary³⁹ elements of the plan: treatment, therapy, diagnostic procedures, referral for medical specialty evaluation, and/or recommendations with respect to pursuit of or avoidance of particular behaviors and activities, i.e., medically necessary restrictions or accommodations, either temporary or permanent.⁴⁰ "Return for a recheck tomorrow," for example, quite clearly bespeaks a significantly greater level of concern than "Follow up in three months."

Medical Records and Clinical Documentation

An initial medical record⁴¹ is expected to document, in a number of well-defined categories, sufficient information with respect to positive findings and pertinent negatives obtained through the medical history, physical examination, and performance of diagnostic tests to establish a baseline with respect to the patient's health status and life situation, a provisional or differential diagnosis, and a preliminary medical management plan devised for the purpose of resolving residual uncertainty and/or initiating treatment.⁴²

³⁹"Medically necessary" means that there is therapeutic or risk-avoiding value associated with an element of the medical management plan such that without the element, the patient would be likely to experience injury, harm, or aggravation of the medical condition. If such were the case, the provider could be held accountable for failure to have evaluated, treated, and/or protected the patient in accordance with established medical diagnostic criteria, scientifically valid medical principles and practice, and/or authoritative medical practice guidelines promulgated by the appropriate recognized medical specialty organization.

⁴⁰"What is meant by "accommodation?" For example, with respect to an "accommodation" at work, medically necessary would mean that the accommodation has risk-avoiding or therapeutic value and/or that without the accommodation, because of the medical condition at issue, the individual could not fully perform the essential functions of the job; and, similar consideration would be documented in the clinical file with respect to comparable non-work related activities. These same principles would also apply to medically necessary restrictions or limitations in activities of daily living, travel, recreation and work.

⁴¹What is a "medical record?" For these purposes, a medical record is a document created by a health care provider for one of two purposes: to establish and maintain documentation of all aspects of medical care or to communicate information regarding a patient to another health care provider for the purpose of continuing or furthering medical care of that patient. The elements of information contained in such a document include the details of the medical evaluation and the results obtained, treatment and the response to treatment, and an explanation of the basis for clinical decisions and the evolving medical management plan. Specifically, a report sent by one health care provider to another health care provider is a medical record. A report sent by a health care provider to an individual not a health care provider, such as an attorney, is not a medical record. In the first instance, the purpose of the report is to communicate information documenting or to be used for furthering medical care. Such a document would constitute an "official" record containing information for which the health care provider may be held legally and professionally accountable and to which the health care provider would make reference in answering questions regarding medical care or in response to a challenge regarding the adequacy or propriety of medical care rendered by that provider. In the second instance, the document may or may not be clinically complete and may contain information for which the health care provider would not necessarily be held legally and professionally accountable, such as conclusions or opinions regarding non-medical matters.

⁴²E.g.: Bates, B., Ibid, pp. 651-663; Swartz, MH, Ibid., p. 619; and, Bickley, LS and Szilagyi, PG, Ibid., pp. 787-789.

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At the time of the first encounter with a patient, whether or not there is a current medical problem for which the patient is seeking evaluation, the primary care physician ordinarily obtains a formal, complete medical history which documents all of the following kinds of information. No subject heading is omitted from the record, and if there is no relevant information in that category, an affirmative statement to that effect is recorded, e.g., "Negative" or "not remarkable," as evidence that consideration of that subject area was not omitted.

- Chief Complaint (CC): the patient's stated reason for seeking medical evaluation and treatment; symptoms of illness or injury;
- History of Present Illness (HPI): the physician's written synthesis of the patient's elaboration of the problem for which the patient is seeking help within the broader context of the complete medical history, the text of which includes information provided by the patient including:
 - the body location(s) of the problems identified as the chief complaint⁴³;
 - the time and circumstances of onset of the problem;
 - the occurrence of an injury;
 - onset of symptoms and other manifestations of the medical condition;
 - or possible exposure to a physical, chemical, or biological agent that could have caused or significantly contributed to the medical condition;
 - the nature, character, quality, and severity of symptom(s);
 - for pain, the specific location, the pathway of radiation (if any), constancy or periods of intermittency, frequency, intensity, character, factors that bring on the pain, and factors that give relief;
 - factors that attenuate or intensify the symptoms;
 - treatment and response to treatment;
 - prior experience with same or similar symptoms;
 - the impact, if any, of the medical condition or symptoms on sleep and day-to-day life activities and work;
 - strategies and measures employed to adapt to or alleviate the problem; and,
 - the patient's understanding or belief regarding the nature and cause of the problem; plus

any other relevant information in terms of positives or pertinent negatives from the following major historical information categories:

- Review of Systems (ROS): a set of questions structured to elicit information regarding the current medical status of body parts, systems and functions for the purposes of defining the context within which the current medical condition has arisen, identifying collateral medical issues, and uncovering previously unrecognized or unreported disease; and which addresses information in the following body systems and structures:
 - general/constitutional, head, eyes, ears, nose, mouth, throat, neck, chest, breasts, respiratory, cardiac, peripheral vascular, lymphatic, gastrointestinal, urinary, reproductive, musculoskeletal, endocrine, hematologic, neurologic, psychiatric, skin, and immunologic.
- Past Medical History (PMH): Illness, injury, surgery, hospital admission, mental health problems; medication or environmental allergy;

⁴³Some textbooks also describe a partial list of factors, the so-called "7 classic dimensions" of a complaint, often expressed as: location; quantity; quality; timing; setting; modifying factors; and, associated symptoms. However, in many cases for complete elucidation of the HPI it is generally necessary to obtain and analyze the other elements listed above.

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- Occupational History;⁴⁴
- Recreational History;
- Environmental History;
- Family History;
- Psychosocial History and current life circumstances;⁴⁵ and
- Sexual and Reproductive History.

These latter major historical categories are also stand-alone components of the medical history. The information obtained during the oral history must be supplemented, at some point in time, by information gleaned from review and analysis of prior records.

While it is possible for a physician to perform a “complete” physical examination on the basis of established protocols for assessment of the various body parts and systems, information obtained from the medical history flags particular areas for probing at a deeper level.

Additional recorded information is obtained through:

- Mental status assessment;
- Physical examination;
- Review and analysis of diagnostic procedures and/or tests; and,
- Review and analysis of prior medical documentation, employment records or other potentially relevant materials

Internists, psychiatrists, orthopaedic surgeons, chiropractors, nurse practitioners as well as all other medical specialists and practitioners are expected to follow the same process for obtaining information from their patients and for documenting and analyzing their findings although, as would be expected, the content will differ from one specialty discipline to another.⁴⁶ Medical records created subsequent to the initial clinical evaluation are also expected to contain sufficient information to continue to provide appropriate ongoing medical care or to support a conclusion that further care is no longer medically necessary.

Mechanism of Injury

“Mechanism of injury” usually refers to how specifically an external force or agent resulted in a body part or structure exceeding its anatomical or physiological tolerances, thus resulting in an adverse alteration of

⁴⁴E.g., Suls, ME, The importance of taking an occupational history, American Family Physician, 4/15/2003, 1684

⁴⁵E.g., Sandler, JL and Becker, GE, “Addressing the relationship between back pain and distress in your patients: the importance of the parallel history in identifying somatization,” Journal of Musculoskeletal Medicine, 12/93, pp. 26-39

⁴⁶E.g.: Hurst, JW, Ed., Medicine for the Practicing Physician, 1996, Appleton & Lange, Publishers, pp. xxxv-xxvi; 1-4; 2040-2046; Andreasen, NC and Black, DW, Introductory Textbook of Psychiatry, 2nd Edition, 1995, American Psychiatric Press, Publisher, pp. 41-52; American Academy of Orthopaedic Surgeons, Ibid, pp. 14-17; Haldeman, S, et. al., editors, Guidelines for Chiropractic Quality Assurance and Practice Parameters, Chapter 5, Record Keeping and Patient Consent, 1993, Aspen Publishers, pp. 81-92; and, Health Care Financing Administration and The American Medical Association, Documentation Guidelines for Evaluation and Management Services: Questions and Answers, U.S. Government Printing Office, 1995, updated May, 1997.

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anatomical structure or physiological function. In order to support a conclusion that in a specific case an external force or agent may have resulted in an alteration of structure or function, resulting in a medical condition, the following kinds of information may be needed: documentation of the force in question, its magnitude and direction, and how or why it affected the body part or structure; scientifically valid medical principles and peer-reviewed literature establishing a relationship between the force or agent and the medical condition in question; documentation in initial clinical records of symptoms and objective clinical signs meeting the medical diagnostic criteria of the medical condition in question.

However, in standard medical practice, a formal biomechanical assessment or an accident reconstruction analysis are usually not required in order to establish whether or not a “clinical mechanism of injury” may have been present. For example, although a biomechanical analysis may involve a critical assessment and study of the vectors and forces which act upon an individual or object in order to determine the potential for injury, given a particular scenario, in contradistinction, the concept of “clinical mechanism of injury,” as is generally relevant in a clinical setting, is understood from factors independent of a technical quantitative biomechanical analysis. This clinical concept of mechanism of injury instead focuses on the circumstances of the injury, and the object is not to attempt to quantify or measure forces and correlate those forces with the potential for injury. Instead, the critical clinical-oriented inquiry is whether or not the circumstances involved a medically known and recognized mechanism of injury.⁴⁷

Thus, it is generally not necessary to perform a biomechanical analysis⁴⁸ or formal accident reconstruction in order to provide a medically valid opinion concerning whether or not a mechanism of injury exists as that term applies in a clinical medical context.

Accordingly, “clinical mechanism of injury” is the concept and methodology routinely relied upon by physicians in considering the manner in which an injury may have occurred, given a patient’s reported

⁴⁷E.g., “The anterior cruciate ligament (ACL) of the knee is often injured during traumatic twisting injuries in which the tibia moves forward with respect to the femur, often accompanied by valgus stress [on the joint]. No direct blow to the knee or leg is required, but the foot is usually planted and the patient may remember a ‘popping’ sensation at the time of the injury. Similar to the ACL, PCL (posterior cruciate ligament) injuries often occur during twisting with a planted foot in which the force of the injury is directed posteriorly against the tibia with the knee flexed.” [Moreover, following such a mechanism of injury sufficient to damage the ligament in question, specific clinical symptoms and findings are anticipated to be present.] Quoted from: Solomon, DH, et al, “Does this patient have a torn meniscus or ligament of the knee?: Value of the physical examination,” JAMA, 10/3/01, 1610-1620.

⁴⁸Note that the terms “biomechanics” or “biomechanical” mean different things depending upon the context. As discussed here, it could mean a quantitative estimation of forces and their directions acting on an individual given a specific event. Similar “biomechanical” concepts and methods are also often applied in medically-relevant contexts such as in the study of the locomotor system of the human body, in the evaluation of the potential effects of work activity or sport on the human body, or in the clinical setting of analysis of disease or injury of an anatomical structure. See for respective examples: (1) Nordin, M and Frankel, VH, Basic Biomechanics the Musculoskeletal System, 2nd Edition, 1989, Lea & Febiger, Publishers; (2) Chaffin, DB and Andersson, GBJ, Occupational Biomechanics, 2nd Edition, 1991, John Wiley & Sons, Inc., Publishers; and, (3) Renstrom, P and Johnson, RJ, Anatomy and biomechanis of the menisci, Clinics in Sports Medicine, 7/80, 523-529.

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medical history and/or the report of an occurrence of specific circumstances of an event,^{49 50} the nature and known causes of the medical condition or clinical finding at issue, and other medically relevant factors. In short, the question to be addressed clinically, with respect to a mechanism of injury, is “do the medical findings make sense given the description of the event?” Moreover, the context or circumstances of the reported event is further analyzed based upon the presence or absence of a verifiable medical condition that has been scientifically shown to potentially be caused by the kind of event in question.

Causation

In some instances, the origin or cause of a medical condition will become an issue, and a doctor will be asked to determine “causation.” “Causation,” however, has one meaning with respect to medical issues⁵¹ and quite a different meaning with respect to legal issues.

From the medical vantage point, an understanding of the “cause” of a medical condition is necessary, with respect to a particular patient, for the purposes of evaluation to arrive at a diagnosis, initiation of appropriate (cause-specific) treatment, and formulation of a plan to manage the patient to the point of recovery and discharge from care or to the point of stabilization and entry into a phase of long-term maintenance care. In addition, an understanding of the “cause” of a medical condition is necessary to determine whether or not a program for prevention is feasible and to implement such a program.

When there are issues of concern beyond the medical issues, such as legal matters, a determination of the medical cause of a medical condition is needed as a starting point for resolution.

⁴⁹Also assuming the report is reliable and/or supported by additional verifiable information, and that clinical assessment findings correlate with an appropriate and potentially related medical condition or disorder.

⁵⁰As explained in a major textbook on emergency medicine, “Knowledge of the mechanism of injury enhances the management of trauma patients,” and assists the physician to anticipate specific injury and afford more appropriate and timely treatment. See, Rosen’s Emergency Medicine: Concepts and Clinical Practice, 6th Edition, 2006, Mosby Publishers, 302-3; also, Grande, CM and Stene, JK, Mechanism of Injury: etiologies of trauma. In Stene, JK, Grande, CM (eds): Trauma Anesthesia, Williams & Wilkins, Publishers, 1990.

⁵¹In medicine, the term “etiology” is often used in place of the word “cause.” For example, “etiology: the science and study of the causes of disease and their mode of operation,” from Steadman’s Pocket Medical Dictionary, 1987, Williams and Wilkins, Publishers. Note that the process of “differential diagnosis,” as discussed above, is not necessarily the same process as an assessment of the potential causes of a medical condition. The term “differential etiology” may be more applicable in describing the process of analysis regarding the possible causes of a medical problem; and, in the standard clinical context, this process may include the consideration of the various factors scientifically shown to be associated with the condition, or alternatively, also acknowledgment of factors scientifically not shown to be related to the condition. Such an endeavor may serve an important medical purpose, and could have vital public health ramifications, if, for example, a dangerous communicable disease is at issue as a possible etiology for a patient’s illness. Then, one important question becomes “how was the infection transmitted to this patient?” However, as discussed below, there is a critical distinction between Step 1 and Step 2 of the determination of causation (etiology) for non-medical purposes, i.e., only Step 1 is a medical determination.

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Accordingly, a determination of causation for nonmedical purposes is a two-step process⁵²:

- Step 1: A medical determination that an alleged external factor could have caused or significantly contributed to the medical condition in question; and
- Step 2: A nonmedical determination that the alleged factor did, in fact, in the instant case, cause or significantly contribute to occurrence of the medical condition.

This two step process is equivalent to the two components of “causation” described by Larson in analyzing claims regarding the cause of harm from exposure to factors such as toxins or trauma,⁵³ namely, “general causation” and “specific causation.” In order to reach a supportable conclusion that the answer to Step 1 is “yes,” the physician must, as set forth in Daubert and within the professional reference framework of established medical diagnostic criteria and scientifically valid medical principles and practice, have conducted a thorough review of the specific facts of the case and the existing medical and other relevant documentation taking into account appropriate scientific principles as documented in the pertinent peer-reviewed scientific literature and the relevance of these principles to the questions at hand. In the legal arena, the answer to Step 2 is left to the finder of fact, and is ultimately not a medical determination.

Employability

An individual is “employable” when he or she has the capacity, with or without accommodation and without a significant risk of substantial injury or harm to self or others, to travel to and from work, to be at work, to perform the essential functions of his or her position in an acceptable manner, and to otherwise meet the demands of the job and the conditions of employment.^{54 55} An individual is “not employable” in a position when the individual lacks such capacity because of a medical condition or for any nonmedical reason.

An individual is not employable for medical reasons, when one of two conditions is met:

- A medical condition, with or without accommodation, precludes the individual from traveling to and from work, being at work, performing the essential functions in an acceptable manner, or otherwise meeting the demands of the job and the conditions of employment; or
- Because of a medical condition, with or without accommodation, it is medically necessary to restrict the individual from performing one or more essential functions of the position or from an activity or task necessary to otherwise meet the demands of the job and the conditions of employment.

An individual is not unemployable simply because a physician says so, for example, by advising that the individual refrain from a particular activity or by submitting a disability form. There must be a medical basis upon which to conclude that such a restriction is medically necessary even if the individual wants to

⁵²Doege, T.C. and Houston, T.P., Eds: American Medical Association Guides to the Evaluation of Permanent Impairment, 4th Edition, 1993, American Medical Association, p. 316.

⁵³Larson, JR, “Expert witness and scientific testimony issues concerning mold litigation in state and federal courts,” Journal of Controversial Medical Claims, 2004, Vol. 10, p. 17.

⁵⁴Doege, T.C. and Houston, T.P., Eds, *AMA Guides*, 1993, Ibid., pp. 6; 318.

⁵⁵Smith, GM: Chapter 18 – “The Role of the Occupational Medicine Physician in the Management of Industrial Injury.” In Mayer, T, Money, V and Gatchel, R, Editors: Contemporary Conservative Care for Painful Spinal Disorders, 1991, Lea & Febiger, pp. 194-5.

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engage in the activity, and documentation of the restriction for comparable non-work-related activities as well must appear in the medical management plan.

The medical information contained in actual medical records⁵⁶ must be assessed in the appropriate administrative context to determine its relevance and probative value with respect to the issues at hand. Two distinct contexts may be defined with respect to disability for the performance of duty: the existence of a documented deficiency in service (performance of duty) severe enough to warrant removal of the employee from the position he or she occupies; or, in the absence of such a service deficiency, the occurrence of a new medical condition, or a change for the worse of an existing medical condition, that warrants, because of a significant risk of substantial injury or harm or a risk of sudden or subtle incapacitation, new restriction from one or more essential functions of the position or from an activity required to otherwise meet the demands of the job and the conditions of employment.

When administrative documentation exists regarding a deficiency in an employee's service severe enough to warrant removal from the position, two questions arise. First, given the nature of the medical condition and the nature of the service deficiency, is it possible that the medical condition could have caused or significantly contributed to the service deficiency. This is a medical question to be answered by a physician. Second, in this particular instance, did the medical condition, in fact, cause or significantly contribute to the service deficiency. This is not a medical question although input from a physician may be needed to assist the decision-maker.

If the answer to both questions is "yes," then it is necessary to consider whether or not the individual is likely to recover from the medical condition within an acceptably short period of time. If the medical condition has become static or well stabilized and is not likely to improve, an employer is required by Federal and state law to consider some form of accommodation would enable the individual to be fully functional despite the medical condition. If accommodation is not possible, including reassignment of the employee to a vacant position for which the employee is qualified, then the individual is no longer qualified for the position and retention as an employee may not be justifiable as a business matter. In this instance, the employee may be eligible for disability benefits upon termination of employment or for disability retirement. Whether or not a workers' compensation claim has been filed and accepted for the disease or injury at issue, it may also be necessary to determine whether or not the medical condition is service connected for retirement purposes.

If the answer to either question is "no," then there is no medical or disability issue and management may proceed with an appropriate administrative action.

In some instances where an actual service deficiency does not exist, a medical condition may, nevertheless, cause the individual to be incapacitated for the performance of duty, in particular, when restriction from performing one or more of the essential functions of the position is medically necessary. When this occurs and it is not possible to provide an accommodation that reduces the risk to an acceptable level or eliminates it altogether, even if the individual was performing all the essential functions of the job in an acceptable manner and otherwise meeting the demands of the job and the conditions of employment, because of the medically necessary restriction, the individual would, de facto, be disabled for the performance of duty. Moreover, if the medical condition has become static or well stabilized and is not likely to improve, the incapacity would, indeed, be permanent.

In other instances, a medical condition may not entail medically necessary restriction from any of the individual's tasks or duties at work. In this case, if the individual wanted to engage in all of the essential

⁵⁶See explanations of "medically necessary," "accommodation," and "medical record" in previous footnotes, Nos. 12, 13, and 14.

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functions of the position, a physician would have no valid medical basis upon which to recommend that he or she not do so. Without a valid medical basis to support a conclusion that a restriction is medically necessary, as noted above, an assertion by a physician, no matter how strongly voiced, that the individual has been “advised” not to engage in the activity can have no acceptable meaning for administrative or legal purposes.

Validation and Use of Medical Information in a Non-medical Decision Process⁵⁷

Keeping in mind that when an individual who requests disability benefits, accommodation, medically based modification of a work location or job, or compensation for injury or disability, is required to present medical documentation, in the form of clinical records, to meet an appropriately defined medical burden of proof, it is only after a medical determination is made regarding the completeness, sufficiency, and accuracy of the medical information and the medical and scientific validity of the decisions regarding treatment and recommendations based on the information that it is appropriate to assess the relevance of the information with respect to the concerns at hand. More simply, unless the medical validity of the information is established, relevance is not at issue. And it is only after the relevance has been verified that a decision can be made as to whether or not the individual has met the medical burden of proof for approval of the request, benefit or compensation. No matter how compelling information may be with respect to medical issues, and no matter how authoritatively it is asserted, information that is not both valid and relevant is of no value in meeting a medical burden of proof.

The medical information used in non-medical decision processes is not “medical technical” information of the kind that is ordinarily used by medical professionals such as findings on physical examination or laboratory test results. Instead, the information used in such decision processes is “medical non-technical” in nature and must be communicated in a form that satisfies the decision-maker’s need.

For example, in a setting where all applicants for a particular job are required to undergo a post-offer, pre-placement medical evaluation in accordance with established medical hiring standards, the decision maker would want to know whether or not “the applicant meets the medical standards for placement” in the position. Or, when an employee who operates heavy equipment or works at heights has experienced a fainting spell, the manager would need to know that “because of the nature and severity of the medical condition, as explained above, the employee presents a significantly greater risk of sudden incapacitation than someone without the medical condition.”

Or, in a setting where an individual is seeking some form of compensation for an apparent injury due to an accident, the decision maker would need to know whether or not there was sufficient information to conclude that an actual mechanism of injury occurred as a result of the reported accident, whether or not the medical condition stated to have occurred as a consequence of the accident was in fact present, and, whether or not the medical attention provided thus far, or possibly needed in the future, was reasonable and related to problems that developed due to the event under consideration.

⁵⁷ Smith, GM, “The role of the occupational medicine physician in the management of industrial injury,” in Contemporary Conservative Care for Painful Spinal Disorders, Editors Mayer, TG, et al, Lea & Febiger, 1991, 191-201.